



BACKSHEET MONOCRYSTALLINE MODULE

PRODUCT: TSM-DE09.05

PRODUCT RANGE: 380-395W

395W+

MAXIMUM POWER OUTPUT

0~+5W

POSITIVE POWER TOLERANCE

20.5%

MAXIMUM EFFICIENCY



Outstanding visual appearance

- Designed with aesthetics in mind
- Excellent cell color control by dedicated cell blackening treatment and machine selection.
- Thinner wires that appear all black at a distance



High customer value

- Lowest guaranteed first year and annual degradation;
- Designed for compatibility with existing mainstream system components
- Higher return on Investment



High power up to 395W

- Up to 20.5% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



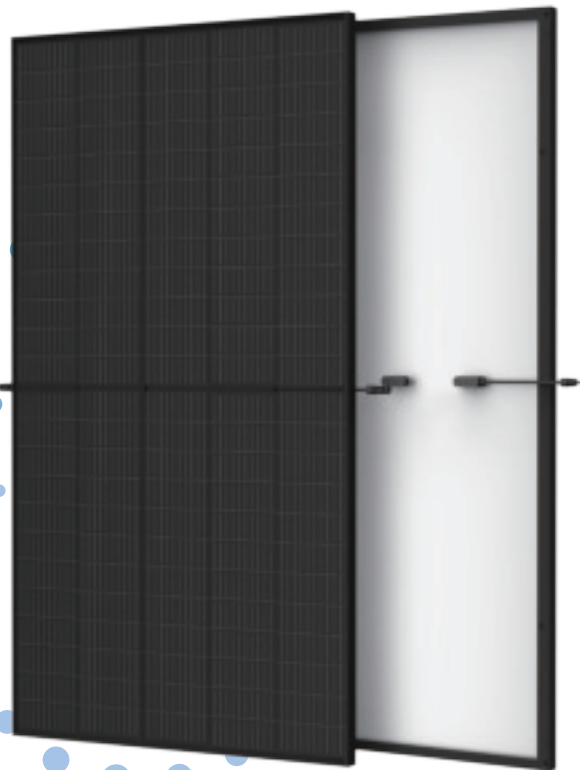
High reliability

- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load

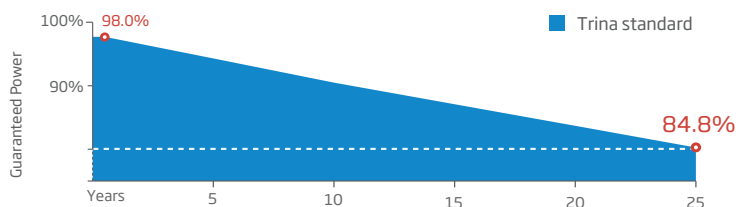


High energy yield

- The unique design provides optimized energy production under inter-row shading conditions
- Lower temperature coefficient (-0.34%) and operating temperature



Trina Solar's Backsheet Performance Warranty



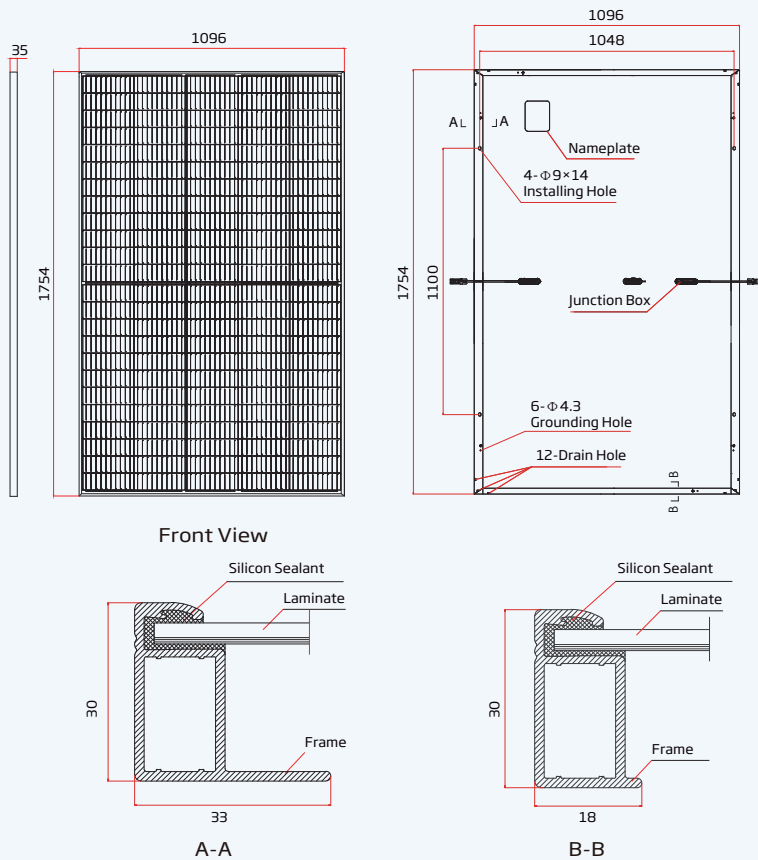
Comprehensive Products and System Certificates



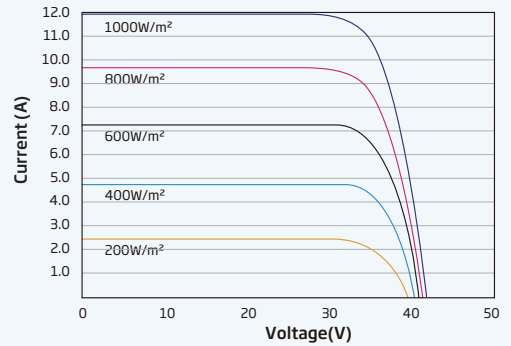
IEC61215/IEC61730/IEC61701/IEC62716
 ISO 9001: Quality Management System
 ISO 14001: Environmental Management System
 ISO14064: Greenhouse Gases Emissions Verification
 ISO45001: Occupational Health and Safety Management System



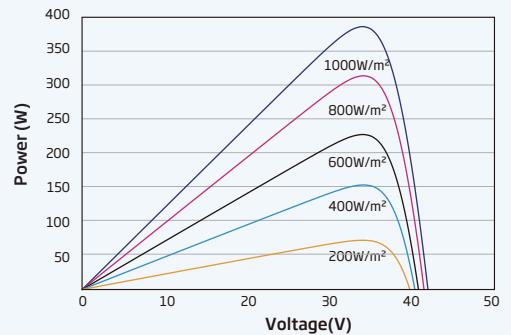
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(390 W)



P-V CURVES OF PV MODULE(390W)



ELECTRICAL DATA (STC)

Parameter	380	385	390	395
Peak Power Watts-P _{MAX} (Wp)*	380	385	390	395
Power Tolerance-P _{MAX} (W)	0 ~ +5			
Maximum Power Voltage-V _{MPP} (V)	33.6	33.8	34.0	34.0
Maximum Power Current-I _{MPP} (A)	11.31	11.39	11.47	11.62
Open Circuit Voltage-V _{OC} (V)	40.6	40.8	41.0	41.2
Short Circuit Current-I _{SC} (A)	11.83	11.90	11.97	12.03
Module Efficiency η _m (%)	19.8	20.0	20.3	20.5

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. *Measuring tolerance: ±3%.

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	287	290	295	298
Maximum Power Voltage-V _{MPP} (V)	31.7	31.9	32.3	32.5
Maximum Power Current-I _{MPP} (A)	9.04	9.10	9.13	9.18
Open Circuit Voltage-V _{OC} (V)	38.2	38.4	38.6	38.7
Short Circuit Current-I _{SC} (A)	9.53	9.59	9.65	9.69

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	120 cells
Module Dimensions	1754×1096×30 mm (69.06×43.15×1.18 inches)
Weight	21.3 kg (47.0 lb)
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	EVA
Backsheet	Black-White
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²), Portrait: 280/280 mm(11.02/11.02 inches) Landscape: 1100/1100 mm(43.31/43.31 inches)
Connector	MC4 EV02 / TS4*

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P _{MAX}	-0.34%/°C
Temperature Coefficient of V _{OC}	-0.25%/°C
Temperature Coefficient of I _{SC}	0.04%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	20A

WARRANTY

12 year Product Workmanship Warranty
 25 year Power Warranty
 2% first year degradation
 0.55% Annual Power Attenuation

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 36 pieces
 Modules per 40' container: 936 pieces